diagnosed in 2000-2003 vs 2008-2010 (for HAART initiation: 62.5% vs 78.2%, P<0.01; for VS: 53.4% vs 70.7%, P<0.01, respectively), age <30 vs ≥40 years (57.6% vs 71.8%, P = 0.01 and 50.6% vs 66.3%, P<0.01), or non-Hispanic blacks (NHB) compared with non-Hispanic whites (NHW) (63.4% vs 67.1%, P = 0.01 and 56.2% vs 62.4%, P = 0.01). In multivariable models, patients were more likely to initiate HAART sooner if diagnosed after 2000-2003 (adjusted hazard ratios [95% confidence intervals] for 2004-2007 and 2008-2010: 1.2 [1.0-1.3] and 1.6 [1.3-1.9]) but were less likely to start if age <30 vs ≥40 years (0.8 [0.7-0.9]), NHB vs NHW (0.7 [0.6-0.9]) and female (0.8 [0.7-1.0]). Similar findings were observed for achieving VS after diagnosis with the exception of sex. In an analysis of outcomes after HAART initiation, further adjusted for CD4 count and plasma HIV RNA viral load (VL) at HAART initiation, NHB compared with NHW were less likely to achieve VS after HAART initiation (0.7 [0.6-0.9]), while age and gender were no longer significant explanatory factors. **CONCLUSIONS:** During 2000-2010, starting HAART and achieving VS ≤12 months became increasingly more common. Adjusting for CD4 and VL at start of HAART, only NHB had decreased likelihood of achieving VS after HAART initiation.

PIN99

DISPARITIES IN INFLUENZA VACCINATIONS AMONG COMMUNITY PHARMACY USERS AND NON-USERS

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OBJECTIVES: This study examined the influenza vaccination rates and racial and ethnic disparities in receiving influenza vaccinations within the past year among community pharmacy users and individuals who did not utilize community pharmacies. **METHODS:** The 2009 Medical Expenditure Panel Survey was analyzed. The sample consisted of respondents aged 50 years or older, as per the 2009 recommendations by the Advisory Committee on Immunization Practices. Bivariate analyses and multivariate logistic regression were conducted to examine the influenza vaccination rates and disparities in the likelihood of receiving influenza vaccinations within past year between non-Hispanic Whites (Whites), non-Hispanic Blacks (Blacks) and Hispanics. The influenza vaccination rates and the likelihood of receiving influenza vaccinations between community pharmacy users and non-users were also examined. **RESULTS:** The sample consisted of 71,135,249 (weighted) community pharmacy users and 20,565,253 (weighted) non-users. Bivariate analyses found that a greater proportion of Whites received influenza vaccinations compared to Blacks and Hispanics, among both the community pharmacy users (60.1% vs. 49.1% and 51.7%, respectively; P<0.0001) and non-users (41.0% vs. 24.3% and 26.0%, respectively; P<0.0001). Adjusted logistic regression analyses found significant racial disparities between Blacks and Whites; compared to Whites, Blacks were found to have a 19 percent lower likelihood among community pharmacy users (odds ratio [OR]: 0.81; 95% CI: 0.69-0.95), and a 34 percent lower likelihood among non-users (OR: 0.66; 95% CI: 0.46-0.94), respectively, of receiving influenza vaccinations. Sociodemographic characteristics and health status accounted for the disparities between Hispanics and Whites. Overall, community pharmacy users had higher influenza vaccination rates (P<0.0001) and were more likely to receive influenza vaccinations compared to non-users (P<0.05). **CONCLUSIONS:** Despite influenza vaccination rates being higher among community pharmacy users, there were racial disparities in receiving influenza vaccinations among both community pharmacy users and non-users. Increased emphasis on educational and awareness campaigns among pharmacists and pharmacy patrons is needed.

PIN100

WOMEN'S EMPOWERMENT AND HIV PREVENTION IN RURAL MALAWI

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OBJECTIVES: Gender inequality has been identified as a key driver of the HIV epidemic by UN AIDS; understanding the gendered nature of the HIV epidemic is thus of high policy-relevance. Condom use and communication among sexual partners are important strategies for HIV prevention. Previous research on the impact of women's empowerment on the uptake of HIV prevention has either focused on economic empowerment only or has left unresolved issues with respect to unobserved heterogeneity. **METHODS:** Using a panel data set of more than 1,200 married women in rural Malawi from 1998-2008, this paper shows that adequate HIV prevention strategies, i.e. condom use within marriage and HIV-related spousal communication, are more widely used as women's bargaining power increases. I focus on different dimensions of women's empowerment, namely personal (e.g. education and economic empowerment) and interpersonal empowerment (e.g. social status and outside options). **RESULTS:** Among the proxies used for women's empowerment, own income, knowledge of other local languages and awareness of exit options from marriage are found to play a particularly important role in promoting adequate preventive behaviors. The main findings continue to hold after individual-specific fixed effects and time dummies are included in order to account for unobserved heterogeneity and time trends. **CONCLUSIONS:** The importance of women's empowerment in fighting the spread of HIV is rarely disputed, yet many HIV/AIDS campaigns fail to tackle underlying gender inequalities. The results from my analysis suggest that greater emphasis should be placed on women's empowerment in order to effectively combat the spread of the HIV/AIDS epidemic, particularly in developing countries.

PIN101

COMPLIANCE WITH THE BIRTH DOSE OF HEPATITIS B VACCINE IN HIGH ENDEMIC AND HARD TO REACH AREAS IN COLOMBIAA

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OBJECTIVES: Estimate vaccine coverage with hepatitis B birth dose in children under 10 years old in high endemic areas of Colombia. Describe how children are vaccinated against Hepatitis B in high endemic areas that are hard to reach due to geographical barriers. Evaluate factors associated with adequate vaccination of newborns with the Hepatitis B birth dose. **METHODS:** A cross sectional study is being carried out in rural areas of the Colombian Amazon. Vaccination history was recorded for 953 children < 10yrs who had a vaccine card. Data were recollected in three areas of the Colombian Amazon: Leticia, Puerto Nariño and Tarapaca.. Children were considered to have a birth dose if they were vaccinated with the monovalent vaccine in the first seven days after delivery. Logistic models were used to estimate association of valid vaccination with several variables. **RESULTS:** A total of 79.9% of the children received a birth dose of hepatitis B, 38.4% received the vaccine in the first week after delivery; 30.9% were vaccinated in the first day and 7.6% in the next seven days. Bivariate analysis: Birth dose was associated (p<0.00) to children delivered at a health facility, health professional assisting the delivery, children living in households with at least one of the following (TV, radio, refrigerator or a boat), children born to women with a higher education level. Multivariate analysis: Only delivering at a health facility was associated with receiving of the birth dose (OR 26.9 CI 95% 17.8-40.7) **CONCLUSIONS:** Our study shows children in rural areas are inadequately vaccinated even though they live in a high risk area for hepatitis B infection and vertical transmission of the HVB is common. Because all children cannot be delivered at a hospital due to geographical barriers new strategies need to be studied to vaccinate newborns in the rural areas.

PIN102

UNINSURED CHRONIC HEPATITIS C PATIENTS AND THEIR COST IMPLICATIONS UNDER THE AFFORDABLE CARE ACT

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OBJECTIVES: To estimate the financial impact of currently uninsured individuals infected with chronic hepatitis C (CHC) who will enter the health care system in 2014 under the Affordable Care Act. **METHODS:** Uninsured CHC prevalence estimates among the US household population were obtained by aggregating data from three National Health and Nutrition Examination Surveys (NHANES) conducted between 2005 and 2010. Commercial insurance claims data from 2007 to 2011 were used to estimate the average annualized all-cause direct medical cost of a CHC patient. ICD-9 diagnosis codes were used to identify CHC patients. All medical service and prescription pharmacy costs were tracked longitudinally and subsequently adjusted for inflation and length of enrollment. **RESULTS:** The prevalence rate of CHC among the US household population was 0.89% during 2005-2010 (95% CI (0.69%, 1.09%)). A total of 40.12% of these individuals were uninsured (95% CI (32.02%, 48.21%)). Applying NHANES prevalence rates to US Census Bureau's current population survey data, the estimated 2011 uninsured CHC population was 1.1MM. However, only 25% or 275,000 individuals may be diagnosed. The average annual medical cost for privately insured diagnosed CHC patients was approximately $24,000. Combining the uninsured CHC prevalence and cost estimates, the annual direct cost of these currently uninsured diagnosed CHC individuals is approximately $6.6B when they enter the health system. The overall incremental cost of currently uninsured CHC individuals may be even higher due to the cost incurred by the undiagnosed CHC population. **CONCLUSIONS:** A large proportion of CHC infected individuals are currently uninsured. When the ACA health insurance mandate takes effect in 2014, this population will gain access to health care coverage and could substantially increase the cost to the health care system.

PIN103

TREATMENT BURDEN ASSOCIATED WITH PEGINTERFERON-BASED ANTIVIRAL THERAPY FOR PATIENTS WITH CHRONIC HEPATITIS C (CHC) IN JAPAN

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OBJECTIVES: Several randomized studies confirmed the efficacy and safety of peginterferon-based antiviral therapy for patients with hepatitis C virus infection. However, various types of patients who were not included in those studies are possibly seeking antiviral therapy in daily practice. The study aim was to analyze those patients and their treatment situation in a real-world setting. **METHODS:** A large claims database (Medical Data Vision, Japan; 4/2010 - 6/2012) was retrospectively analyzed. The study patients were those who had evidence of CHC (ICD10: B182) and initiated either the combination therapy with peginterferon + ribavirin (PR) or the triple therapy with peginterferon + ribavirin + telaprevir (PR+T) from November, 2011. **RESULTS:** A total of 207 patients were identified, with 136 patients initiating PR (median age 56 years) and 71 patients initiating PR+T (median age 60 years). A quarter of patients were aged ≥65 in both therapy groups. 6% of patients given PR and 13% of patients given PR+T were previously diagnosed with hepatocellular carcinoma (HCC). Mean initial doses of peginterferon and ribavirin were similar between PR and PR+T however, mean adherence to the ribavirin dose in PR+T was 78% and lower than PR (95%). Patients requiring hospitalizations for treatment initiation were significantly different between PR and PR+T (71% vs. 93%, P<0.01); lengths of stay were 11.8 and 18.5 days in PR and PR+T, respectively (P<0.01), P-values were not changed after adjusting for patient age, gender, and previous diagnosis of HCC and cirrhosis. **CONCLUSIONS:** The study found that a quarter of patients were elderly and the majority of patients required hospitalization to start treatment with either PR or PR+T. More effective and safer treatment is desirable. Further

research is needed to understand how differences in the characteristics of the patients treated with PR+T versus PR impact on treatment adherence and hospitalization patterns observed.

PIN104
EPIDEMIOLOGIC TRANSITION OF HEPATITIS A IN SIX COUNTRIES AND IMPLICATIONS FOR VACCINATION POLICY: DATA FROM A SYSTEMATIC LITERATURE REVIEW

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OBJECTIVES: To evaluate hepatitis A (HAV) endemicity in six countries via systematic review of published literature. The countries represent varying seroprevalence (different stages of the HAV epidemiologic transition), stages of vaccine consideration, and face different circumstances that may affect vaccine adoption. **METHODS:** Articles published from 1990 to October 2011 were identified through a number of article search engines, including PubMed®. Search terms were "Hepatitis A" and [Country]. Reference lists of identified articles were reviewed for relevant articles published prior to 1990. A supplementary Internet search identified additional information not indexed in the reviewed search engines. Articles were excluded if they focused on the biological mechanisms of hepatitis A, were non-human studies, vaccine trial results, case studies or opinion pieces. **RESULTS:** A total of 797 articles were identified. After exclusions, the number of articles reviewed were: Chile, 33; India, 80; Mexico, 25; Russia, 38; South Korea, 75; and Taiwan, 65. India is still considered to have high HAV endemicity, while Chile and Mexico are intermediate, and Korea, Russia, and Taiwan are low. The timeframe of available data differed greatly by country and often region/city within a country, with some regions only having data as recent as five (in Mexico, Taiwan) or ten (in Chile, India, Russia) years ago. Data supporting the HAV epidemiologic transition varied by country, and it was often unclear at which point the country transitioned to a lower endemicity category, if at all. Hepatitis A incidence data were sparse for some countries, and recent outbreaks were reported in Korea and Taiwan. **CONCLUSIONS:** Data gaps, including determination of the HAV epidemiologic transition, exist to some extent in all the countries studied. Filling these data gaps to enhance knowledge of the burden of HAV will assist countries in decision-making regarding vaccine adoption.

PIN105
THE IMPACT OF PRICING METHODOLOGIES ON COMMUNITY ACQUIRED PNEUMONIA (CAP) DRUGS IN BRAZIL

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OBJECTIVES: Pharmaceutical spending in Brazil represents approximately 11% of its total Gross Domestic Product (GDP). Sales of generics represented 17.2% of the pharmacy sector by value and 21.3% by volume in 2010, and are expected to grow at a higher rate than the overall pharmacy market. This study looks at how the increase in generics use, along with reference price controls, may impact access to newly approved Community Acquired Pneumonia (CAP) drugs. **METHODS:** An array of published data such as pricing process, current policies, sector-specific research articles contributed towards a framework to understand the key factors affecting access to CAPs drugs, were gathered. The data then informed a telephone survey of national and regional health care stakeholders (N=5). **RESULTS:** Findings show that in Brazil: 1) New CAP products are placed in 1 of 2 product categories based on comparisons to comparator agents; 2) Category I products are considered to be better than the comparator and can charge a premium price; 3) The price cannot exceed the lowest price of 9 reference countries, which are Australia, Canada, Spain, USA, France, Greece, Italy, New Zealand and Portugal; 4) Category II products do not demonstrate a benefit over the comparator and the price is based on a cost-minimization analysis; and 5) There are no national guidelines for treating CAP. **CONCLUSIONS:** Drugs used to treat CAP are compared to comparator agents based on clinical efficacy and overall patient benefit. This will determine placement in a product category that will drive pricing. Pharmaceutical companies developing new antibiotics to treat CAP must 1) consider launch sequence/timing in reference price countries; 2) assess the impact of price based on product category placement; 3) demonstrate cost–effectiveness of the drug; and 4) determine whether a new product will provide a benefit over comparator agents.

PIN106
HIV LABORATORY TESTS USED AS A PROXY FOR MEDICAL VISITS FOR DEFINING ENGAGEMENT IN CARE

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OBJECTIVES: Attendance at biannual medical visits has been proposed as a minimum U.S. standard for adequate engagement in human immunodeficiency virus (HIV) care. The U.S. National HIV Surveillance System collects dates of HIV laboratory tests but not medical visits, the current metric for determining if a patient is engaged in medical care. Using data from the HIV Outpatient Study (HOPS), we analyzed how reported laboratory data correlated with actual engagement in care. **METHODS:** The HOPS is an open prospective study of HIV-infected patients receiving outpatient care. The dataset included dates for laboratory measurements and medical encounters. We included patients with at least one HIV laboratory test and one medical visit during 2010-2011. An HIV laboratory test was associated with a medical visit if it occurred within 3 weeks of the visit. We assessed the predictive value of HIV laboratory tests as a proxy for adequate engagement in clinical care, defined as having had ≥2 HIV laboratory tests within 1 year where the tests were performed ≥90 days apart. **RESULTS:** A total of 10,301 HIV laboratory tests were recorded from among 2,895 patients. Most (75%) laboratory tests were measured on the same day as a clinical visit; 90% were within ±3 weeks. The prevalence of adequate engagement in clinical care in HOPS based on medical visits was 89%. Using HIV laboratory tests to measure engagement had sensitivity of 85%, specificity of 87%, and positive and negative predictive values of 98% and 42%. Of the 21.4% of persons classified as not engaged in care by the proxy measure, 58% were actually engaged. **CONCLUSIONS:** Using ≥2 documented HIV laboratory tests measured ≥90 days apart reliably classified persons as engaged in care. However, more than half of persons not meeting the proxy definition were misclassified as not adequately engaged in care.

PIN107
ANTIFUNGAL TREATMENT PATTERNS AND OUTCOMES IN PATIENTS WITH A BLOOD CULTURE POSITIVE FOR CANDIDA AND WITH SEPSIS OR CRITICAL ILLNESS

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OBJECTIVES: Timely initiation of antifungal therapy in septic or critically ill (CrILL) patients with candidemia is crucial, and real-world treatment and outcomes data in such patients are limited. We examined treatment patterns and outcomes for septic/CrILL inpatients with candidemia. **METHODS:** This retrospective study of electronic health record data from 7/2005-3/2012 used Cerner's Health Facts. Adult inpatients with ≥1 blood culture positive for any species of *Candida*and sepsis/CrILL were studied. CrILL was defined as ≥1 organ system dysfunction plus intensive care unit exposure. Timing of initial antifungal therapy relative to the index blood culture draw (BCx), length-of-stay following first antifungal order (AF-LOS), mortality, and measures of resource utilization were explored using descriptive statistics. Chi-square was used for proportional, and t-test for continuous data comparisons. **RESULTS:** Of 1,288 candidemia patients with sepsis/CrILL, 266 initiated antifungal therapy prior to BCx, 150 within 24h of BCx, 590 after 24h, and 282 received no antifungal therapy. The mortality rates were 39.9%, 30.7%, 29.7%, and 51.1%, respectively. (P<0.001). Initial antifungal therapies in those treated ≤24h of BCx were: fluconazole in 54.0%, echinocandin in 39.3%, other azoles in 3.3%, and amphotericin B in 3.3%. In patients treated within 24h after BCx with fluconazole (n=81) or echinocandin (n=59), occurrence of bacteremia was high (71% vs. 75%); echinocandin patients had a higher mean number of organ system dysfunctions than fluconazole patients (1.8 vs. 1.5, P=0.04). In the ≤24h treated groups, AF-LOS (fluconazole 20.8, echinocandin 22.1 days; P=0.63) and mortality (fluconazole 25.9%, echinocandin 32.2%; P=0.42) was similar, as were total charges (approximately US$76,000). **CONCLUSIONS:** A large proportion of inpatients with candidemia and sepsis/CrILL failed to receive antifungal therapy within 24h of the first positive BCx, with an adverse mortality effect. Nonetheless, patients treated within 24h have high mortality and resource utilization.

PIN108
TREATMENT PATTERNS IN PEDIATRIC ANTIBIOTIC FORMULATIONS: AN ANALYSIS OF THE RAMQ DATABASE

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OBJECTIVES: In clinical practice, the taste of liquid pediatric antibiotics may contribute to treatment acceptance and compliance. The purpose of this study was to analyze treatment patterns and persistence with liquid pediatric antibiotics, in a real life setting, using the RAMQ database. **METHODS:** Selected patients were < than 20 years old and were covered by the Quebec provincial drug reimbursement program (RAMQ). They were prescribed a liquid pediatric antibiotic (branded or generic formulation) during the period from July 2008 to April 2011 at least once. The analyses evaluated patients and treatment characteristics and patterns in terms of short-term (30 days or less) and long-term (> than 30 days) repeated use. **RESULTS:** Data were available for a sample of 67,727 patients who used an antibiotic of interest. The average age of the study population was 4.7 years (SD=3.5) and 89.9% were < than 10 years old. The proportion of boys versus girls was similar (51.2% versus 48.8%, respectively). Amoxicillin trihydrate and macrolides, clarithromycin and azithromycin were most often used (49.3% and 33.0%, respectively). About 55.4% of children received more than one antibiotic during the study period. Among children who received a second antibiotic, about 22.5% required it within 30 days following treatment initiation. In the short-term, the need for a second antibiotic was more frequent when cephalosporin was the initial treatment. In the long-term, when the initial treatment was amoxicillin or a macrolide, subsequent antibiotics were more likely to be the same as the first antibiotic. **CONCLUSIONS:** Many children will require more than one antibiotic treatment during their childhood. Several factors may contribute to short-term acceptance and compliance of the initial antibiotic, one of which may be taste. The better the acceptance and compliance to the initial antibiotic, the more likely the same antibiotic will be used for subsequent treatments.

NEUROLOGICAL DISORDERS – Clinical Outcomes Studies

PND1
COMPARATIVE RISKS OF SEVERE CUTANEOUS REACTIONS, ASEPTIC MENINGITIS, AND ORGAN DYSFUNCTION ASSOCIATED WITH ANTIEPILEPTIC DRUGS

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